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**From:** Mullin, Michelle [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=2AE5FC11B98742BAB4287B61E107018C-MULLIN, MICHELLE R]  
**Sent:** 12/4/2015 12:34:48 AM  
**To:** 'Brewer, Lloyd' [lbrewer@spokanecity.org]  
**CC:** 'Pearson, Adrienne' [apearson@spokanecity.org]; 'Greenlund, Doug' [dgreenlund@spokanecity.org]; 'Donovan, Jeffery' [jdonovan@spokanecity.org]  
**Subject:** RE: City of Spokane PCB reports

Thank you for these reports, Lloyd, and for the conversation this morning.

Take care,

**Michelle Mullin**

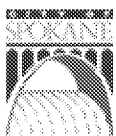
PCB Coordinator

US EPA Region 10  
1200 6th Avenue | Suite 900 | AWT-150  
**NOTE NEW MAILING ADDRESS**  
Seattle, WA 98101  
mullin.michelle@epa.gov  
206-553-1616  
[www.epa.gov/region10/pcb.html](http://www.epa.gov/region10/pcb.html)

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**From:** Brewer, Lloyd [mailto:lbrewer@spokanecity.org]  
**Sent:** Thursday, December 03, 2015 10:33 AM  
**To:** Mullin, Michelle <Mullin.Michelle@epa.gov>  
**Cc:** Pearson, Adrienne <apearson@spokanecity.org>; Greenlund, Doug <dgreenlund@spokanecity.org>; Donovan, Jeffery <jdonovan@spokanecity.org>  
**Subject:** City of Spokane PCB reports

Michelle- It was good talking with you this morning. I have attached two reports that summarize catch basin monitoring activities among other things. For future information potential contacts are Adrienne Pearson, Stormwater Coordinator- Wastewater Management, 509-625-7908; Doug Greenlund, Environmental Analyst- Environmental Programs, 625-6533; and Jeff Donovan, Chemist-Wastewater Management, 625-4638.



**Lloyd R. Brewer** | Environmental Programs Manager

City of Spokane | 509.625.6968  
[www.greenspokane.org](http://www.greenspokane.org)

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**From:** Steward, Kara (ECY) [mailto:kste461@ECY.WA.GOV]  
**Sent:** Tuesday, December 01, 2015 5:37 PM  
**To:** Mullin, Michelle; Davies, Holly (ECY)  
**Cc:** Brewer, Lloyd  
**Subject:** RE: Inadvertent PCB Discussion

Michelle ---

We expect to run multiple de-icer samples in our 2016 PCB sampling effort. In order to confirm the results and determine the magnitude.

The deicer is mixed with a corrosion inhibitor before application – similar to the hydroseed result, this needs more data before any conclusions can be reached.

You should talk to Lloyd Brewer at Spokane – he can explain the sample and research they've conducted.

Best,  
Kara

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Kara Steward  
Hazardous Waste & Toxics Reduction Program  
PO 47600, Olympia WA 98504-7600  
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[kara.steward@ecy.wa.gov](mailto:kara.steward@ecy.wa.gov)

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**From:** Mullin, Michelle [<mailto:Mullin.Michelle@epa.gov>]  
**Sent:** Tuesday, December 01, 2015 5:32 PM  
**To:** Davies, Holly (ECY); Steward, Kara (ECY)  
**Subject:** RE: Inadvertent PCB Discussion

Thanks all, anyone know why this de-icer has PCBs in it? I think the article said it was basically a magnesium based salt, Right??

## Michelle Mullin

### PCB Coordinator

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**From:** Davies, Holly (ECY) [<mailto:hdav461@ECY.WA.GOV>]  
**Sent:** Tuesday, November 24, 2015 2:57 PM  
**To:** [kste461@ecy.wa.gov](mailto:kste461@ecy.wa.gov); Mullin, Michelle <[Mullin.Michelle@epa.gov](mailto:Mullin.Michelle@epa.gov)>  
**Subject:** RE: Inadvertent PCB Discussion

That's the same spreadsheet I used yesterday, but we have different numbers. I noticed that total congeners for WSDOT deicer is 0.078 (what I sent yesterday), which total homologs for the same sample is 0.038 (in your email).

The congener vs. homolog totals are different for the other samples, too. This reflects the low levels and that they all seem to have qualifiers.

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**From:** Steward, Kara (ECY)  
**Sent:** Tuesday, November 24, 2015 2:18 PM  
**To:** Davies, Holly (ECY); Mullin, Michelle  
**Subject:** RE: Inadvertent PCB Discussion

Michelle & Holly,

I have a spreadsheet from Lloyd Brewer (City of Spokane 509.625.6968 or [lbrewer@spokanecity.org](mailto:lbrewer@spokanecity.org)) with the product testing results.

The samples results are below for deicer. The results are in Total PCBs in ppb levels. Based on this information, it appears to be a single sample of the Spokane Deicer and a single sample of the DOT deicer.

9/18/2014	replicate #4	Deicer MgCl	1.952
9/18/2014	008-091814-0925	Deicer MgCl	1.332
9/16/2014	009-091614-1520	WSDOT Deicer	0.038

Ecology is planning another round of PCB sampling in 2016 – it's likely that we'll be including deicer in our plans. Let me know if you have more questions (or contact Lloyd for more direct discussion).

Best,  
Kara

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Kara Steward  
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PO 47600, Olympia WA 98504-7600  
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[kara.steward@ecy.wa.gov](mailto:kara.steward@ecy.wa.gov)

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**From:** Davies, Holly (ECY)  
**Sent:** Monday, November 23, 2015 3:59 PM  
**To:** Mullin, Michelle  
**Cc:** Steward, Kara (ECY)  
**Subject:** RE: Inadvertent PCB Discussion

I CC'd Kara, since she's working on PCB purchasing.

The data I have says 1-2 ppb, so not much, but they use a lot of deicer and it goes directly into stormwater. The spreadsheet has two samples of deicer and one says "replicate #4," so it seems like there were replicates. There's another column for DOT de-icer which was 0.078 ppb. I don't know if they've done more sampling since.

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**From:** Mullin, Michelle [<mailto:Mullin.Michelle@epa.gov>]  
**Sent:** Monday, November 23, 2015 3:48 PM  
**To:** Davies, Holly (ECY) <[hdav461@ECY.WA.GOV](mailto:hdav461@ECY.WA.GOV)>  
**Subject:** FW: Inadvertent PCB Discussion

Hi Holly-

Just received this article and wondered if you could tell me what the concentration of PCBs in the de-icer was? Is it based on only one sample like the hydroseed?

Thanks,

**Michelle Mullin**

## PCB Coordinator

US EPA Region 10

1200 6th Avenue | Suite 900 | AWT-150

### **NOTE NEW MAILING ADDRESS**

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**From:** Borgias, Adriane P. (ECY) [<mailto:ABOR461@ECY.WA.GOV>]

**Sent:** Monday, November 23, 2015 3:33 PM

**To:** Gangmark, Carolyn <[Gangmark.Carolyn@epa.gov](mailto:Gangmark.Carolyn@epa.gov)>; Zarker, Ken (ECY) <[kzar461@ECY.WA.GOV](mailto:kzar461@ECY.WA.GOV)>; Mullin, Michelle <[Mullin.Michelle@epa.gov](mailto:Mullin.Michelle@epa.gov)>; Paula Del Giudice <[PDelGiudice@pprc.org](mailto:PDelGiudice@pprc.org)>; mmartz@pprc.org; VanBergen, Saskia (ECY) <[sava461@ECY.WA.GOV](mailto:sava461@ECY.WA.GOV)>; 'Lauren Heine' <[lauren@lheinegroup.com](mailto:lauren@lheinegroup.com)>

**Cc:** Drake, Robert <[Drake.Robert@epa.gov](mailto:Drake.Robert@epa.gov)>; Nogi, Jill <[nogi.jill@epa.gov](mailto:nogi.jill@epa.gov)>; Davies, Holly (ECY) <[hday461@ECY.WA.GOV](mailto:hday461@ECY.WA.GOV)>; Figueroa-Kaminsky, C. (ECY) <[cfig461@ECY.WA.GOV](mailto:cfig461@ECY.WA.GOV)>; Stone, Alex (ECY) <[ALST461@ECY.WA.GOV](mailto:ALST461@ECY.WA.GOV)>; Williamson, Ann <[Williamson.Ann@epa.gov](mailto:Williamson.Ann@epa.gov)>; Kraege, Carol P. (ECY) <[ckra461@ECY.WA.GOV](mailto:ckra461@ECY.WA.GOV)>

**Subject:** RE: Inadvertent PCB Discussion

Carolyn,

Here is the article from this weekend:

<http://www.spokesman.com/stories/2015/nov/22/deicer-used-by-city-of-spokane-contains-pcbs/>

Adriane Borgias

Spokane River Water Quality Lead

Washington State Department of Ecology

Water Quality Program - Eastern Regional Office

4601 North Monroe Street

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*This communication is public record and may be subject to disclosure as per the Washington State Public Records Act, RCW 42.56.*

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**From:** Gangmark, Carolyn [<mailto:Gangmark.Carolyn@epa.gov>]

**Sent:** Monday, November 09, 2015 9:57 AM

**To:** Zarker, Ken (ECY) <[kzar461@ECY.WA.GOV](mailto:kzar461@ECY.WA.GOV)>; Mullin, Michelle <[Mullin.Michelle@epa.gov](mailto:Mullin.Michelle@epa.gov)>; Paula Del Giudice <[PDelGiudice@pprc.org](mailto:PDelGiudice@pprc.org)>; mmartz@pprc.org; VanBergen, Saskia (ECY) <[sava461@ECY.WA.GOV](mailto:sava461@ECY.WA.GOV)>; 'Lauren Heine' <[lauren@lheinegroup.com](mailto:lauren@lheinegroup.com)>

**Cc:** Drake, Robert <[Drake.Robert@epa.gov](mailto:Drake.Robert@epa.gov)>; Nogi, Jill <[nogi.jill@epa.gov](mailto:nogi.jill@epa.gov)>; Davies, Holly (ECY) <[hday461@ECY.WA.GOV](mailto:hday461@ECY.WA.GOV)>; Borgias, Adriane P. (ECY) <[ABOR461@ECY.WA.GOV](mailto:ABOR461@ECY.WA.GOV)>; Figueroa-Kaminsky, C. (ECY) <[cfig461@ECY.WA.GOV](mailto:cfig461@ECY.WA.GOV)>; Stone, Alex (ECY) <[ALST461@ECY.WA.GOV](mailto:ALST461@ECY.WA.GOV)>; Williamson, Ann <[Williamson.Ann@epa.gov](mailto:Williamson.Ann@epa.gov)>; Kraege, Carol P. (ECY) <[ckra461@ECY.WA.GOV](mailto:ckra461@ECY.WA.GOV)>

**Subject:** Inadvertent PCB Discussion

Colleagues, Looks like we have quorum, date and time for our call. Talk to you on Tuesday, the 24<sup>th</sup>!

Date: Tuesday, November 24<sup>th</sup>

Time: 11:30 am – 1:00 pm

Call-in Number: 866-299-3188

Code: 206-553-1266

Carolyn Gangmark

Pollution Prevention Coordinator

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